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<141> 2001-04-11

<150> PCT/US00/28664

<151> 2000-10-17

<150> 60/163,085

<151> 1999-11-02

<150> 60/172,411

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<170> PatentIn Ver. 2.0

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<212> DNA
<213> Homo sapiens

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2053

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<211> 985
<212> DNA
<213> Homo sapiens

<400> 19

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<210> 20
<211> 848
<212> DNA
<213> Homo sapiens

<400> 20

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<210> 21
<211> 1097
<212> DNA
<213> Homo sapiens

<400> 21

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<210> 22
<211> 665
<212> DNA
<213> Homo sapiens

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<210> 23
<211> 700
<212> DNA
<213> Homo sapiens

<400> 23	
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<210> 24
<211> 1828
<212> DNA
<213> Homo sapiens

<400> 24

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<210> 25
<211> 692
<212> DNA
<213> Homo sapiens

<400> 25

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<210> 26
<211> 700
<212> DNA
<213> Homo sapiens

<400> 26
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<210> 27
<211> 2752
<212> DNA
<213> Homo sapiens

<400> 27
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<210> 28
<211> 947
<212> DNA
<213> Homo sapiens

<400> 28	
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gcccaagtct gactctaaaa ttctgcttc ttcatattt ttttctgcca ttcaaagttt	180
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ttaagggtca cctggccag aaggggggc agacccacct gcccaccatg accggacag	360
aggcgataaa tacggagcac ctcatggca gggctggag gattccacc ataccctacc	420
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atttgatccc cagttgtgaa ggtggggct ggtggagat gttctgtta tcgggatgga	660
tccttcatga atagcctggt gccatcttgc ttgttacaag tgagttctca cttgattagt	720
ttctgtgaga actgtttgtt aaaaagagcc ttgtggcacc tccctccctt cttcctcctt	780
ctcttgctat gtgtgtc tgcccttgc ctccgtcat gagtggaaagc tccctgaagc	840
ccccaccaga agcaaatgct ggcaccatgc tgcttgcata gcctgcagaa ctgtgagcca	900
aataaacctc ttttctttaa aattaaaaaa aaaaaaaaaaaaaaa	947

<210> 29
<211> 932
<212> DNA
<213> Homo sapiens

<400> 29	
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aactctggat ttgctgtc ctcttctggaa agccctgtc gttttggag ttccccagca	180
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ggaaaggctg aagtcacatc ggctgcatca ttttcatca aaagccctgc agcttccagt	300
tttggatcac ctggatttc aggacttca gcttccttgg caacaggtcc tgcagact	360
cccagtggcc ccagccttg gaggtggcag ttctgtggct gttttggta gtccggggct	420
cacattctca cactggctt ttcttaagcca tccagtgac acttttggaa atagccaggc	480
atatcccact tctctgtcag cccttcaaggc cagcatcaat tgcaacagat aatgtgttat	540

tcacacccag aaataaaacta acagtagaaag aactggaaaca atttcaatcc aagaaaattta	600
ctctggaaa aattccatta aagcctccac ctctggact tctaaatgtt taaaagggca	660
atttaaata caaaaaagaa tgatgtttaa aattgctttg agtgattcat acagagatgt	720
atatatgcat acatgtatat attcataagg aatataagct tccatcaata gtgattttaa	780
atttgatttt ttcttaact ctaaatattt aagtaaaaag taacaaaaac totgcaagca	840
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ctttctcat gccaaaaaaaaaa aa	932

<210> 30
<211> 1670
<212> DNA
<213> Homo sapiens

<400> 30

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aatggacggg ttctggaga ccagatggtc tcagacactg agctccagga aatgtccacc	180
gaggggagta agtacattaa tcgggaaatt aaaaatgctc tcaagggggt gaagcagata	240
aagacactaa tagaacaaac aaacgaggag cgc当地atccc tgctcaccaa cttggaagaa	300
gccagaaga agaaagagga tgccctgaat gacaccaagg attcagaaaat gaagctgaag	360
gcgtcgcagg gggtgtgcaa tgacaccatg atggccctct gggaggagtg taagccctgc	420
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tggccaccag gttgaggagt tcctgaacca gagttctccc ttctacttct ggattaatgg	540
cgaccgcatac gactccctgc tggagaacga cccgc当地cag acccaacgccc tggatgtcat	600
gcaggacagt ttgcaccggg catccagcat catggatgag ctgttccagg acagatttt	660
cacccgtgag gcccaggacc ctttccactt ctc当地cccttc agctcattcc agcggaggcc	720
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gcccttgaat ttccacgaca tgtttcaagcc ct当地tccgac atgatacacc aggctcagca	840
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cctccctctg gactctgc当地 tgc当地acccg tgc当地actgc tcatggaaag aactccctgtg	1620
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<210> 31
<211> 2072
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2065)
<223> n equals a,t,g, or c

<400> 31

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cggcctggac	catggacgccc	agatgggtggg	cagtgggtgg	gctggctcg	ttccccctccc	180
taggggcagg	tggggagact	cccgaaagccc	ctccggagtc	atggaccagg	ctatggttct	240
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<210> 32
<211> 985
<212> DNA
<213> *Homo sapiens*

<400> 32		
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gcggaaaagg acaaggatcc aaactggcg aatttgcgtat cttcgctcc ctctccgctt		180
tccggccggc agcgtgcga gggtatattt cctttttcc gatcctgc当地 cagcctctt		240
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tactcttctt gatcatgtt gttgtaaac tggatgagaa agcaccttg aactggttcc		360
tcatattyat tccagtctgg atatttgata ctatcccttct tgccctgctg atttgtaaaa		420
tggctggcg gtgtaaagtct ggcttgacc ctcgacatgg atcacacaat attaaaaaaaa		480
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aactggaaaca gtttactacc atgaatctat cctatgtctt cattccttta tggcccttgc		600
tggctgggc tttaacagaa ctggatata atgtctttt tggagagagac tgacttctaa		660
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accggggggg gggccccccc cccaa		985

<210> 33
<211> 1380
<212> DNA
<213> Homo sapiens

<400> 33

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ggggcagcag	agatcaagaa	acctaataatt	tcaggtttta	cagacatttc	accagagggaa	300
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gtaaaaagta	acaaaaactc	tgcaagcaag	ggaatttttt	tgtactgtaa	tttgaatgg	1320
aactgaaaaaa	ttatgcacga	ataaagtact	tttctcatgc	aaaaaaaaaa	aaaaaaaaaa	1380

<210> 34
<211> 363
<212> PRT
<213> Homo sapiens

<400> 34

Met	Lys	Thr	Leu	Leu	Leu	Leu	Val	Gly	Leu	Leu	Leu	Leu	Thr	Trp	Glu	Asn	
1																	

1	5	10	15
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Gly	Arg	Val	Leu	Gly	Asp	Gln	Met	Val	Ser	Asp	Thr	Glu	Leu	Gln	Glu	
20																

25	30
----	----

Met	Ser	Thr	Glu	Gly	Ser	Lys	Tyr	Ile	Asn	Arg	Glu	Ile	Lys	Asn	Ala	
35																

40	45
----	----

Leu	Lys	Gly	Val	Lys	Gln	Ile	Lys	Thr	Leu	Ile	Glu	Gln	Thr	Asn	Glu	
50																

55	60
----	----

Glu	Arg	Lys	Ser	Leu	Leu	Thr	Asn	Leu	Glu	Glu	Ala	Lys	Lys	Lys	Lys	
65																

70	75
----	----

Glu	Asp	Ala	Leu	Asn	Asp	Thr	Lys	Asp	Ser	Glu	Met	Lys	Leu	Lys	Ala	
85																

90	95
----	----

Ser	Gln	Gly	Val	Cys	Asn	Asp	Thr	Met	Met	Ala	Leu	Trp	Glu	Glu	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Lys Pro Cys Leu Lys Gln Thr Cys Met Lys Phe Tyr Ala Arg Val Cys
 115 120 125

Arg Ser Ser Thr Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn
 130 135 140

Gln Ser Ser Pro Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser
 145 150 155 160

Leu Leu Glu Asn Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln
 165 170 175

Asp Ser Phe Asp Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp
 180 185 190

Arg Phe Phe Thr Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe
 195 200 205

Ser Ser Phe Gln Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe
 210 215 220

Ala Arg Asn Ile Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His
 225 230 235 240

Asp Met Phe Gln Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala
 245 250 255

Met Asp Val Asn Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr
 260 265 270

Glu Glu Asp Asn Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn
 275 280 285

Ser Thr Gly Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu
 290 295 300

Ile Leu Ser Val Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu
 305 310 315 320

Arg Gln Glu Leu Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys
 325 330 335

Leu Val Arg Arg Ala Ala Val Leu Pro Gly Glu Asp Val Gln His
 340 345 350

Val Leu Pro Ala Glu Ala Ala Gly Arg Ala Val
 355 360

<210> 35

<211> 766

<212> PRT

<213> Homo sapiens

<400> 35

Met Ile Trp Arg Ser Arg Ala Gly Ala Glu Leu Phe Ser Leu Met Ala

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Leu Trp Glu Trp Ile Ala Leu Ser Leu His Cys Trp Val Leu Ala Val			
20	25		30
Ala Ala Val Ser Asp Gln His Ala Thr Ser Pro Phe Asp Trp Leu Leu			
35	40		45
Ser Asp Lys Gly Pro Phe His Arg Ser Gln Glu Tyr Thr Asp Phe Val			
50	55	60	
Asp Arg Ser Arg Gln Gly Phe Ser Thr Arg Tyr Lys Ile Tyr Arg Glu			
65	70	75	80
Phe Gly Arg Trp Lys Val Asn Asn Leu Ala Val Glu Arg Arg Asn Phe			
85	90		95
Leu Gly Ser Pro Leu Pro Leu Ala Pro Glu Phe Phe Arg Asn Ile Arg			
100	105		110
Leu Leu Gly Arg Arg Pro Thr Leu Gln Gln Ile Thr Glu Asn Leu Ile			
115	120		125
Lys Lys Tyr Gly Thr His Phe Leu Leu Ser Ala Thr Leu Gly Gly Glu			
130	135		140
Glu Ser Leu Thr Ile Phe Val Asp Lys Arg Lys Leu Ser Lys Arg Ala			
145	150	155	160
Glu Gly Ser Asp Ser Thr Thr Asn Ser Ser Ser Val Thr Leu Glu Thr			
165	170		175
Leu His Gln Leu Ala Ala Ser Tyr Phe Ile Asp Arg Asp Ser Thr Leu			
180	185		190
Arg Arg Leu His His Ile Gln Ile Ala Ser Thr Ala Ile Lys Val Thr			
195	200		205
Glu Thr Arg Thr Gly Pro Leu Gly Cys Ser Asn Tyr Asp Asn Leu Asp			
210	215		220
Ser Val Ser Ser Val Leu Val Gln Ser Pro Glu Asn Lys Ile Gln Leu			
225	230	235	240
Gln Gly Leu Gln Val Leu Leu Pro Asp Tyr Leu Gln Glu Arg Phe Val			
245	250		255
Gln Ala Ala Leu Ser Tyr Ile Ala Cys Asn Ser Glu Gly Glu Phe Ile			
260	265		270
Cys Lys Glu Asn Asp Cys Trp Cys His Cys Gly Pro Lys Phe Pro Glu			
275	280	285	
Cys Asn Cys Pro Ser Met Asp Ile Gln Ala Met Glu Glu Asn Leu Leu			
290	295	300	
Arg Ile Thr Glu Thr Trp Lys Ala Tyr Asn Ser Asp Phe Glu Glu Ser			
305	310	315	320

Asp Glu Phe Lys Leu Phe Met Lys Arg Leu Pro Met Asn Tyr Phe Leu
 325 330 335

Asn Thr Ser Thr Ile Met His Leu Trp Thr Met Asp Ser Asn Phe Gln
 340 345 350

Arg Arg Tyr Glu Gln Leu Glu Asn Ser Met Lys Gln Leu Phe Leu Lys
 355 360 365

Ala Gln Lys Ile Val His Lys Leu Phe Ser Leu Ser Lys Arg Cys His
 370 375 380

Lys Gln Pro Leu Ile Ser Leu Pro Arg Gln Arg Thr Ser Thr Tyr Trp
 385 390 395 400

Leu Thr Arg Ile Gln Ser Phe Leu Tyr Cys Asn Glu Asn Gly Leu Leu
 405 410 415

Gly Ser Phe Ser Glu Glu Thr His Ser Cys Thr Cys Pro Asn Asp Gln
 420 425 430

Val Val Cys Thr Ala Phe Leu Pro Cys Thr Val Gly Asp Ala Ser Ala
 435 440 445

Cys Leu Thr Cys Ala Pro Asp Asn Arg Thr Arg Cys Gly Thr Cys Asn
 450 455 460

Thr Gly Tyr Met Leu Ser Gln Gly Leu Cys Lys Pro Glu Val Ala Glu
 465 470 475 480

Ser Thr Asp His Tyr Ile Gly Phe Glu Thr Asp Leu Gln Asp Leu Glu
 485 490 495

Met Lys Tyr Leu Leu Gln Lys Thr Asp Arg Arg Ile Glu Val His Ala
 500 505 510

Ile Phe Ile Ser Asn Asp Met Arg Leu Asn Ser Trp Phe Asp Pro Ser
 515 520 525

Trp Arg Lys Arg Met Leu Leu Thr Leu Lys Ser Asn Lys Tyr Lys Ser
 530 535 540

Ser Leu Val His Met Ile Leu Gly Leu Ser Leu Gln Ile Cys Leu Thr
 545 550 555 560

Lys Asn Ser Thr Leu Glu Pro Val Leu Ala Val Tyr Val Asn Pro Phe
 565 570 575

Gly Gly Ser His Ser Glu Ser Trp Phe Met Pro Val Asn Glu Asn Ser
 580 585 590

Phe Pro Asp Trp Glu Arg Thr Lys Leu Asp Leu Pro Leu Gln Cys Tyr
 595 600 605

Asn Trp Thr Leu Thr Leu Gly Asn Lys Trp Lys Thr Phe Phe Glu Thr
 610 615 620

Val His Ile Tyr Leu Arg Ser Arg Ile Lys Ser Asn Gly Pro Asn Gly
 625 630 635 640

Asn Glu Ser Ile Tyr Tyr Glu Pro Leu Glu Phe Ile Asp Pro Ser Arg
 645 650 655

Asn Leu Gly Tyr Met Lys Ile Asn Asn Ile Gln Val Phe Gly Tyr Ser
 660 665 670

Met His Phe Asp Pro Glu Ala Ile Arg Asp Leu Ile Leu Gln Leu Asp
 675 680 685

Tyr Pro Tyr Thr Gln Gly Ser Gln Asp Ser Ala Leu Leu Gln Leu Leu
 690 695 700

Glu Ile Arg Asp Arg Val Asn Lys Leu Ser Pro Pro Gly Gln Arg Arg
 705 710 715 720

Leu Asp Leu Phe Ser Cys Leu Leu Arg His Arg Leu Lys Leu Ser Thr
 725 730 735

Ser Glu Val Val Arg Ile Gln Ser Ala Leu Gln Ala Phe Asn Ala Lys
 740 745 750

Leu Pro Asn Thr Met Asp Tyr Asp Thr Thr Lys Leu Cys Ser
 755 760 765

<210> 36

<211> 208

<212> PRT

<213> Homo sapiens

<400> 36

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Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met
 20 25 30

Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser
 35 40 45

Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn
 50 55 60

Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp
 65 70 75 80

Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn
 85 90 95

Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu
 100 105 110

Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile
 115 120 125

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Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala
130                               135                               140

Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys
145                               150                               155                               160

Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr
165                               170                               175

Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser
180                               185                               190

Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile
195                               200                               205

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<210> 37
 <211> 605
 <212> PRT
 <213> Homo sapiens

 <400> 37
 Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Pro Leu Leu Ser Pro
 1 5 10 15

 Leu Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala
 20 25 30

 Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu
 35 40 45

 Asp Leu Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro
 50 55 60

 Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly
 65 70 75 80

 Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln
 85 90 95

 Tyr Phe Trp Glu Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu
 100 105 110

 Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly
 115 120 125

 Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser
 130 135 140

Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro
 145 150 155 160

 Arg Glu Arg Glu Lys Glu
 165 170 175

Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Leu Leu Pro Val
 180 185 190
 Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu
 195 200 205
 Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp
 210 215 220
 Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly
 225 230 235 240
 Pro Ser Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly
 245 250 255
 Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala
 260 265 270
 Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu
 275 280 285
 Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro
 290 295 300
 Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His
 305 310 315 320
 Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu
 325 330 335
 Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln
 340 345 350
 Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln
 355 360 365
 Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser
 370 375 380
 Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile
 385 390 395 400
 Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu
 405 410 415
 Val Glu Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp
 420 425 430
 His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met
 435 440 445
 Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser
 450 455 460
 Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn
 465 470 475 480
 Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser

485

490

495

Asp Tyr Gly Thr Leu Phe Val Val Leu Val Val Ile Gly Ala Ile Cys
 500 505 510

Ile Ile Ile Ile Ala Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg Arg
 515 520 525

Leu Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe Val
 530 535 540

Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp Ser
 545 550 555 560

Gln Ser Glu Met Gln Glu Lys His Pro Ser Leu Asn Gly Gly Ala
 565 570 575

Leu Asn Gly Pro Gly Ser Trp Gly Ala Leu Met Gly Gly Lys Arg Asp
 580 585 590

Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
 595 600 605

<210> 38

<211> 86

<212> PRT

<213> Homo sapiens

<400> 38

Met Tyr Lys Leu Glu Leu Ile Phe Pro Thr Ala Leu Val Leu Pro Ile
 1 5 10 15

Leu Val Asn Gly Thr Val Ile Cys Pro Leu Lys Ala Arg Asn Ser Val
 20 25 30

Ile Pro Ser Ser Ser Phe Leu Thr Ser Leu Gln Leu Thr Ile Trp Ile
 35 40 45

Gln Pro Cys Leu Phe Leu Pro Thr Thr Thr Gly Leu Ser Ser Gly Tyr
 50 55 60

His Thr Phe Leu Ser Gly Leu His Ser Cys His Ile Ser Phe Ala Thr
 65 70 75 80

Ala Ile Pro Gly Cys Leu
 85

<210> 39

<211> 158

<212> PRT

<213> Homo sapiens

<400> 39

Met Ala Ala Ala Ser Ala Gly Ala Thr Arg Leu Leu Leu Leu Leu
 1 5 10 15

Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala
 20 25 30

Gly Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Ala
 35 40 45

Cys Gly Thr Val Gly Leu Leu Leu Glu His Ser Phe Glu Ile Asp Asp
 50 55 60

Ser Ala Asn Phe Arg Lys Arg Gly Ser Leu Leu Trp Asn Gln Gln Asp
 65 70 75 80

Gly Thr Leu Ser Leu Ser Gln Arg Gln Leu Ser Glu Glu Glu Arg Gly
 85 90 95

Arg Leu Arg Asp Val Ala Ala Ser Tyr Leu Asp Cys Gly Ala Thr Arg
 100 105 110

Ala Cys Gly Pro Leu Leu Cys Ala Thr Leu Pro Val Ser Leu Phe Lys
 115 120 125

Asn Ile Asp Asp Thr Leu Lys Cys Val Asn Val Leu Lys Ser Tyr Ser
 130 135 140

Phe Gln Gln Pro Lys Ala Thr Val Val Leu Ala Arg Arg Ser
 145 150 155

<210> 40

<211> 58

<212> PRT

<213> Homo sapiens

<400> 40

Met Thr Lys Ala Leu Ile Pro Thr Pro Phe Phe Leu Ala Ala Met Trp
 1 5 10 15

Pro Leu Trp Gln His Ser Trp Ala Gln Thr Leu Arg Ser Gln Arg Gln
 20 25 30

Glu Ala Asp Ala Trp Ala Lys Ala Gly Ala Gly Asn Ser Arg Gly Ser
 35 40 45

Leu Ala Trp Arg Leu Leu Met Ser Ser Gly
 50 55

<210> 41

<211> 432

<212> PRT

<213> Homo sapiens

<400> 41

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser
 1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
 20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser
 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn
 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
 65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro
 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu
 100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val
 115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser
 130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg
 145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln
 165 170 175

Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser
 180 185 190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser
 195 200 205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met
 210 215 220

Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr
 225 230 235 240

Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser
 245 250 255

Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu
 260 265 270

Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp
 275 280 285

Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe
 290 295 300

Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu
 305 310 315 320

Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu
 325 330 335

Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln
 340 345 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr
 355 360 365

Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu
 370 375 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val
 385 390 395 400

Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys
 405 410 415

Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val
 420 425 430

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<210> 42
<211> 131
<212> PRT
<213> Homo sapiens

<400> 42

Met	Ser	Leu	Ala	Gln	Arg	Val	Leu	Leu	Thr	Trp	Leu	Phe	Thr	Leu	Leu
1							5		10				15		

Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro Trp Asn
 20 25 30

Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile Leu Leu
 35 40 45

Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly Phe Asp
 50 55 60

Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr Leu Ile
 65 70 75 80

Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala Lys Leu
 85 90 95

Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro Leu Trp
 100 105 110

Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val Phe Phe
 115 120 125

Val Arg Asp
 130

<210> 43
<211> 215

<212> PRT

<213> Homo sapiens

<400> 43

Met	Arg	Leu	Pro	Ala	Trp	Cys	Arg	His	Thr	Thr	Leu	Ala	Ile	Ser	Cys
1															

Trp	His	Cys	Leu	Val	Leu	Ala	Arg	Ala	Ser	Ala	Asp	Ser	Ala	Ser	Leu
			20				25								30

Pro	Thr	Ile	Ser	His	Leu	Gly	Val	Lys	Pro	Leu	Ser	Val	Gly	Trp	Gly
							35		40					45	

Ala	Pro	Ser	Thr	Leu	Pro	Val	Ser	Pro	Cys	Gly	Gly	Lys	Pro	Ala	Ala
							50		55					60	

Pro	Thr	Ser	Ala	Ser	Pro	Ala	Ala	Ala	Pro	Leu	Arg	Phe	Trp	Arg	Pro
							65		70		75			80	

Gly	Ala	Ser	Gly	Gly	Ala	Gly	Gly	Thr	Arg	Arg	Leu	Ala	Leu	Cys
							85		90					95

Arg	Leu	Val	Thr	Ala	Arg	Thr	Thr	Leu	Ala	Thr	Gly	Thr	Pro	Gly	Leu
							100		105					110	

Ser	Ala	Arg	Pro	Arg	Gln	Arg	Pro	Cys	Leu	Leu	Pro	Val	Leu	Pro	Arg
							115		120					125	

Arg	Pro	Ala	Glu	Leu	Ser	Val	Ser	Leu	Glu	Pro	Ser	Pro	Gly	Ser	Ser
							130		135					140	

Gly	Arg	Gly	Phe	Leu	Cys	Leu	Pro	Phe	Cys	Lys	Arg	Asp	Ala	Asp	Thr
							145		150		155			160	

Ser	Leu	Gly	Gln	Thr	Leu	Thr	Ser	Ser	Cys	Ser	Leu	Ser	Ser	Ile	Leu
							165		170					175	

Val	Gly	Gly	Thr	Leu	Arg	Pro	Arg	Cys	Ser	Cys	Pro	Pro	Phe	Thr	Gln
							180		185					190	

Arg	Ser	Ala	Phe	His	Leu	Arg	Thr	Pro	His	Asn	Gln	Tyr	His	His	Gly
							195		200					205	

Ser	Thr	Ser	Leu	Ala	Ser	His
210						215

<210> 44

<211> 61

<212> PRT

<213> Homo sapiens

<400> 44

Met	Lys	Ser	Ala	Leu	His	Arg	Asp	Ile	Cys	Ile	Leu	Met	Leu	Thr	Ala
1															15

Ala	Leu	Phe	Thr	Ile	Ala	Lys	Thr	Glu	Lys	Gln	His	Lys	Cys	Pro	Ser
							20		25					30	

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Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr
 35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln
 50 55 60

<210> 45
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 45
 Met Ile Pro Phe Pro Ala Cys Leu Leu Leu Ala Leu Phe Pro Lys Val
 1 5 10 15

Gln Val Gly Arg Thr Thr Ser Ala Tyr Phe Ser Thr Ile Pro Ser Met
 20 25 30

Pro Ala Arg Ser Gln Ile Asn Leu Pro Val Glu Ser Gly Ser Ala Leu
 35 40 45

Leu Glu Pro Arg Gly Lys Gly Arg Val Glu Arg Val Cys Pro Val Ala
 50 55 60

Trp Ser Ser Met Val Ala Ser Cys Leu Pro Ser Pro Ser Ser Gly Gly
 65 70 75 80

Pro Glu Gly Ser Leu Gly Thr Val Pro Gln Ile Leu Thr Gln Gly Pro
 85 90 95

Ala Trp Gly Arg Asp Gly Cys Arg Gln Asn Ala Leu Tyr Arg Asp Phe
 100 105 110

Leu Leu Leu Gly Arg Cys Val Ser Pro Thr Ile Cys Leu
 115 120 125

<210> 46
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 46
 Met Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala
 1 5 10 15

Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu
 20 25 30

Pro Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val
 35 40 45

Gly Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu
 50 55 60

Ile His Val Gly Leu Leu Asn

65 70

<210> 47
 <211> 69
 <212> PRT
 <213> Homo sapiens

<400> 47
 Met Lys Ala Val Val Leu Leu Lys Ala Phe Ser Phe Ser Leu Cys Ser
 1 5 10 15

Ala Ile Ser Pro Val Thr Pro Gly Phe Arg Gln Thr Ile Asn Val Leu
 20 25 30

Asp Thr Val Ala Phe Ser Ala Phe Phe Ile Tyr Leu Phe Thr Val Thr
 35 40 45

Ala Ser Ile Asn Phe Tyr Ala Tyr Phe Ser Ser Phe Leu Ala Gly Ala
 50 55 60

Pro Phe Ile Lys Ile
 65

<210> 48
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 48
 Met Ala Ala Gly Gly Cys Leu Leu Leu Ala Phe Phe Pro Leu Ser
 1 5 10 15

Arg Gly Ser His Phe His Leu Gln Lys Arg Ala Leu Ala Glu Ala Ser
 20 25 30

Phe Glu Ala Thr Leu Cys Glu Leu Phe Val Ile Glu Thr Ala Ser Lys
 35 40 45

Gly Thr Leu Leu Ile Ile Thr Ile Arg His Leu Val Thr Tyr Ile Ile
 50 55 60

Val Ile Phe Lys Cys His Met Leu Lys Asn Glu Met Asn Ser Ser Ile
 65 70 75 80

Lys Pro His Phe Gln
 85

<210> 49
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 49
 Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val
 1 5 10 15

Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr
 20 25 30

Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser
 35 40 45

Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp
 50 55 60

Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln
 65 70 75 80

Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn
 85 90 95

Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn
 100 105 110

Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys
 115 120 125

Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro
 130 135 140

Ile Ser Ile Met Ile Cys
 145 150

<210> 50

<211> 298

<212> PRT

<213> Homo sapiens

<400> 50

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Val Pro Leu
 1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp
 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu
 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile
 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr
 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu
 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp
 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe
 115 120 125

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Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn
 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp
 145 150 155 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu
 165 170 175

Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe
 180 185 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala
 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala
 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His
 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys
 245 250 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu
 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys
 275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe
 290 295

<210> 51
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Leu Asp Leu Ser Pro Ser Leu Thr Leu Lys Phe Cys Phe Leu His
 1 5 10 15

Leu Val Phe Leu Pro Phe Lys Val Tyr Cys Gln Leu Leu Gln Glu Leu
 20 25 30

Leu Ser Lys Pro Val Ser Lys Leu Pro Leu Thr Pro Gln Cys Gln Ser
 35 40 45

Trp Ala Arg Pro Leu Gly Asp Leu Glu
 50 55

<210> 52
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 52

Met	Leu	Arg	Thr	Leu	Val	Leu	Lys	Gln	Thr	Leu	Asp	Leu	Leu	Leu	Pro
1				5					10					15	

Leu	Leu	Glu	Ala	Leu	Leu	Val	Leu	Gly	Val	Pro	Gln	His	Leu	Glu	Leu
				20				25				30			

Gln	Pro	Leu	Pro	Val	Gln	Val	Ser	Leu	Leu	Leu	Gln	Leu	Leu	Asp
				35			40				45			

Leu	Gly	Ser	Leu	Lys	Ser	His	Arg	Leu	His	His	Phe	His	Ser	Lys	Ala
				50		55			60						

Leu	Gln	Leu	Pro	Val	Leu	Asp	His	Leu	Asp	Phe	Gln	Asp	Phe	Gln	Leu
				65		70			75			80			

Pro	Trp	Gln	Gln	Val	Leu	Ser	Glu	Leu	Pro	Val	Ala	Pro	Ala	Phe	Gly
				85				90			95				

Gly	Gly	Ser	Ser	Val	Ala	Gly	Phe	Gly	Ser	Pro	Gly	Leu	Thr	Phe	Ser
				100			105			110					

His	Trp	Leu	Phe	Leu	Ser	His	Pro	Val	Asp	Thr	Phe	Gly	Asn	Ser	Gln
				115			120			125					

Ala	Tyr	Pro	Thr	Ser	Leu	Ser	Ala	Leu	Gln	Ala	Ser	Ile	Asn	Cys	Asn
				130		135			140						

Arg
145

<210> 53
<211> 139
<212> PRT
<213> Homo sapiens

<400> 53

Met	Lys	Thr	Leu	Leu	Leu	Val	Gly	Leu	Leu	Leu	Thr	Trp	Glu	Asn
1				5				10			15			

Gly	Arg	Val	Leu	Gly	Asp	Gln	Met	Val	Ser	Asp	Thr	Glu	Leu	Gln	Glu
				20				25			30				

Met	Ser	Thr	Glu	Gly	Ser	Lys	Tyr	Ile	Asn	Arg	Glu	Ile	Lys	Asn	Ala
				35		40			45						

Leu	Lys	Gly	Val	Lys	Gln	Ile	Lys	Thr	Leu	Ile	Glu	Gln	Thr	Asn	Glu
				50		55			60						

Glu	Arg	Lys	Ser	Leu	Leu	Thr	Asn	Leu	Glu	Glu	Ala	Lys	Lys	Lys	Lys
65				70				75			80				

Glu	Asp	Ala	Leu	Asn	Asp	Thr	Lys	Asp	Ser	Glu	Met	Lys	Leu	Lys	Ala
				85				90			95				

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys

100	105	110
Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu		
115	120	125
Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly		
130	135	
<210> 54		
<211> 432		
<212> PRT		
<213> Homo sapiens		
<400> 54		
Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser		
1	5	10
15		
Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr		
20	25	30
Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser		
35	40	45
Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn		
50	55	60
Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys		
65	70	75
80		
Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro		
85	90	95
Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu		
100	105	110
Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val		
115	120	125
Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser		
130	135	140
Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg		
145	150	155
160		
Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln		
165	170	175
Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser		
180	185	190
Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser		
195	200	205
Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met		
210	215	220
Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr		

225	230	235	240
Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser			
245		250	255
Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu			
260		265	270
Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp			
275	280	285	
Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe			
290	295	300	
Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu			
305	310	315	320
Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu			
325		330	335
Phe Ala Ala His Ala Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln			
340		345	350
Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr			
355	360	365	
Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu			
370	375	380	
Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val			
385	390	395	400
Val Phe Ala Ala Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys			
405		410	415
Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val			
420		425	430

<210> 55
<211> 133
<212> PRT
<213> Homo sapiens

<400> 55
Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr
1 5 10 15

Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro
20 25 30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile
35 40 45

Leu Leu Val Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly

50

55

60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr
 65 70 75 80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala
 85 90 95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro
 100 105 110

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val
 115 120 125

Phe Phe Val Arg Asp
 130

<210> 56

<211> 77

<212> PRT

<213> Homo sapiens

<400> 56

Met Ala Ile Cys Gln Phe Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp
 1 5 10 15

Arg Cys Trp Asn Glu His Pro Gly Ala Arg Gly Ala Gly Gly Arg
 20 25 30

Gln Gln Pro Gln Gln Gln Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn
 35 40 45

Thr Thr Ser Gln Arg Tyr Ser Asn Val Ile Gln Pro Ser Ser Phe Ser
 50 55 60

Lys Ser Thr Pro Trp Gly Gly Ser Arg Asp Gln Glu Thr
 65 70 75

<210> 57

<211> 247

<212> PRT

<213> Homo sapiens

<400> 57

Asn Arg Pro Gly Gly Arg Val Tyr Ala Arg Val Cys Arg Ser Ser Thr
 1 5 10 15

Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn Gln Ser Ser Pro
 20 25 30

Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser Leu Leu Glu Asn
 35 40 45

Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln Asp Ser Phe Asp
 50 55 60

Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp Arg Phe Phe Thr
 65 70 75 80

Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe Ser Ser Phe Gln
 85 90 95

Arg Arg Pro Phe Phe Asn Ile Lys His Arg Phe Ala Arg Asn Ile
 100 105 110

Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His Asp Met Phe Gln
 115 120 125

Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala Met Asp Val Asn
 130 135 140

Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr Glu Glu Asp Asn
 145 150 155 160

Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn Ser Thr Gly Cys
 165 170 175

Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu Ile Leu Ser Val
 180 185 190

Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu Arg Gln Glu Leu
 195 200 205

Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys Leu Val Arg Arg
 210 215 220

Ala Ala Ala Val Leu Pro Gly Glu Asp Val Gln His Val Leu Pro Ala
 225 230 235 240

Glu Ala Ala Gly Arg Ala Val
 245

<210> 58

<211> 85

<212> PRT

<213> Homo sapiens

<400> 58

Met Ala Val Ala Lys Asp Met Trp Gln Glu Cys Asn Pro Asp Lys Lys
 1 5 10 15

Val Trp Tyr Pro Glu Leu Lys Pro Val Val Val Gly Arg Lys Arg Gln
 20 25 30

Gly Cys Ile His Met Val Asn Cys Ser Glu Val Arg Lys Glu Glu Leu
 35 40 45

Gly Ile Thr Glu Phe Leu Ala Leu Ser Gly Gln Met Thr Val Pro Leu
 50 55 60

Thr Lys Ile Gly Arg Thr Arg Ala Val Gly Lys Met Ser Ser Ser Leu
 65 70 75 80

HOMO SAPIENS

Tyr Met Leu Leu Phe
85

<210> 59
<211> 468
<212> PRT
<213> Homo sapiens

<400> 59
His Glu Gly Ser Leu Ala Ala Pro Gly Gly Gly Gly Ser Ala Gly
1 5 10 15

Gly Ala Arg Pro Gly Asp Ser His Ser Pro Val Pro Pro Pro His
20 25 30

Ala Ala Trp Thr Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala
35 40 45

Ala Phe Pro Ser Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro
50 55 60

Glu Ser Trp Thr Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala
65 70 75 80

Gly Tyr Ala Ser Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe
85 90 95

Arg Arg Lys Asn Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu
100 105 110

Val Lys Ala Cys Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val
115 120 125

Pro Leu Ala Pro Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln
130 135 140

Ala Leu Lys Leu Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu
145 150 155 160

Thr Trp Gly Val Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala
165 170 175

Thr Ala Thr Ser Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val
180 185 190

Leu Met Asn Arg Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val
195 200 205

Leu Cys Lys Gln Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe
210 215 220

Ala Ser Leu Ser Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu
225 230 235 240

Lys Phe Val Ser Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val
245 250 255

Ile Pro Val Met Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu
 260 265 270

His Trp Glu Tyr Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met
 275 280 285

Phe Leu Leu Ser Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr
 290 295 300

Leu Ser Gly Leu Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe
 305 310 315 320

Thr Ser Asn Trp Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val
 325 330 335

Gln Met Met Phe Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly
 340 345 350

Ser Leu Leu Glu Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly
 355 360 365

Arg His Ser Glu Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser
 370 375 380

Ala Cys Gly Gln Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala
 385 390 395 400

Ala Val Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu
 405 410 415

Leu Ser Cys Leu Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu
 420 425 430

Gly Val Ala Val Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg
 435 440 445

Gly Arg Leu Lys Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro
 450 455 460

Val Gln Lys Val
 465

<210> 60
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 60
 Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr
 1 5 10 15

Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro
 20 25 30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile
 35 40 45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly
 50 55 60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr
 65 70 75 80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala
 85 90 95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro
 100 105 110

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val
 115 120 125

Phe Phe Val Arg Asp
 130

<210> 61

<211> 75

<212> PRT

<213> Homo sapiens

<400> 61

Met Phe Leu Pro Thr Phe Tyr Pro Glu Lys Arg Phe Ser Pro Lys Asp
 1 5 10 15

Ser Ala Gln Ser Val Pro Pro Trp Glu His Leu Pro Gly Gln Pro Leu
 20 25 30

Arg Ala His Trp Ala Ser Leu His His Thr Asn Thr Pro Val Pro His
 35 40 45

Trp Leu Ser Asp Tyr Met Ala Val Cys Leu Val Lys Lys Lys Asn Gln
 50 55 60

Lys Lys Lys Lys Gln Lys Lys Lys Lys Lys
 65 70 75

<210> 62

<211> 93

<212> PRT

<213> Homo sapiens

<400> 62

Val Gly Thr Ala Ile Met Glu Asn Ser Met Ala Val Pro Leu Lys Thr
 1 5 10 15

Glu Leu Pro Tyr Asp Pro Ala Ile Pro Leu Leu Ser Ile Pro Lys Glu
 20 25 30

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala
 35 40 45

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser
 50 55 60

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr
 65 70 75 80

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln
 85 90

<210> 63
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 63
 Ala Arg Gly Pro Leu Gly Leu Leu Asp Pro Ala Glu Gly Leu Ser Arg
 1 5 10 15

Arg Lys Lys Thr Ser Leu Trp Phe Val Gly Ser Leu Leu Leu Val Ser
 20 25 30

Val Leu Ile Val Thr Val Gly Leu Ala Ala Thr Thr Arg Thr Glu Asn
 35 40 45

Val Thr Val Gly Gly Tyr Tyr Pro Gly Ile Ile Leu Gly Phe Gly Ser
 50 55 60

Phe Leu Gly Ile Ile Gly Ile Asn Leu Val Glu Asn Arg Arg Gln Met
 65 70 75 80

Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala Phe
 85 90 95

Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu Pro
 100 105 110

Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val Gly
 115 120 125

Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu Ile
 130 135 140

His Val Gly Leu Leu Asn
 145 150

<210> 64
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 64
 Thr Arg Pro Val Leu Ala Tyr Val Leu Gly Asp Pro Ala Ile Tyr Gln
 1 5 10 15

Ser Leu Lys Ala Gln Asn Ala Tyr Ser Arg His Cys Pro Phe Tyr Val
 20 25 30

Ser Ile Gln Ser Tyr Trp Leu Ser Phe Phe Met Val Met Ile Leu Phe

35

40

45

Val Ala Phe Ile Thr Cys Trp Glu Glu Val Thr Thr Leu Val Gln Ala
 50 55 60

Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr Ile Leu Tyr Phe Pro Phe
 65 70 75 80

Ser Ser His Ser Ser Tyr Thr Val Arg Ser Lys Lys Ile Phe Leu Ser
 85 90 95

Lys Leu Ile Val Cys Phe Leu Ser Thr Trp Leu Pro Phe Val Leu Leu
 100 105 110

Gln Val Ile Ile Val Leu Leu Lys Val Gln Ile Pro Ala Tyr Ile Glu
 115 120 125

Met Asn Ile Pro Trp Leu Tyr Phe Val Asn Ser Phe Leu Ile Ala Thr
 130 135 140

Val Tyr Trp Phe Asn Cys His Lys Leu Asn Leu Lys Asp Ile Gly Leu
 145 150 155 160

Pro Leu Asp Pro Phe Val Asn Trp Lys Cys Cys Phe Ile Pro Leu Thr
 165 170 175

Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro Ile Ser Ile Met Ile Cys
 180 185 190

<210> 65

<211> 269

<212> PRT

<213> Homo sapiens

<400> 65

Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro Glu Glu Leu
 1 5 10 15

Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu Gln Ser Tyr
 20 25 30

Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn Arg Val Asn
 35 40 45

Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu Leu Ser Asp
 50 55 60

Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly Phe Gly Ser
 65 70 75 80

Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val Asn Asn Ser
 85 90 95

Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr Asn Ser Gly Phe

100

105

110

Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly Ser Ser Pro Ala
 115 120 125

Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser Thr Ser Ala Pro
 130 135 140

Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala Ala Ser Phe Ser
 145 150 155 160

Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro Gly Phe Ser Gly
 165 170 175

Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala Pro Val Ala Pro
 180 185 190

Ala Phe Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Ser
 195 200 205

His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp Thr Phe Gly Asn
 210 215 220

Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser Ile Ile Ala Thr
 225 230 235 240

Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr Val Glu Glu Leu
 245 250 255

Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys Ile
 260 265

<210> 66

<211> 300

<212> PRT

<213> Homo sapiens

<400> 66

Met Ser Ser Ser His Pro Val Ser Pro Asn Pro His His Gly Gly Ala
 1 5 10 15

Ala Glu Ile Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro
 20 25 30

Glu Glu Leu Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu
 35 40 45

Gln Ser Tyr Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn
 50 55 60

Arg Val Asn Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu
 65 70 75 80

Leu Ser Asp Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly
 85 90 95

Phe Gly Ser Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val

100	105	110
Asn Asn Ser Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr Asn		
115	120	125
Ser Gly Phe Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly Ser		
130	135	140
Ser Pro Ala Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser Thr		
145	150	155
Ser Ala Pro Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala Ala		
165	170	175
Ser Phe Ser Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro Gly		
180	185	190
Phe Ser Gly Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala Pro		
195	200	205
Val Ala Pro Ala Phe Gly Gly Ser Ser Val Ala Gly Phe Gly Ser		
210	215	220
Pro Gly Ser His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp Thr		
225	230	235
240		
Phe Gly Asn Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ile		
245	250	255
Ile Ala Thr Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr Val		
260	265	270
Glu Glu Leu Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys Ile		
275	280	285
Pro Leu Lys Pro Pro Pro Leu Glu Leu Leu Asn Val		
290	295	300
<210> 67		
<211> 365		
<212> PRT		
<213> Homo sapiens		
<400> 67		
Arg Arg Pro Pro Ser Ala Thr Pro Ser Gln Trp Pro Phe Val Asn Ser		
1	5	10
15		
Ser Phe Lys Ala Gly Ala Ala Leu Glu Ile Gly Ala Gly Thr Asn Ile		
20	25	30
Pro Val Leu Gly Val Gln Glu Glu Asp Gly Ser Asn Arg Ser Ser Ser		
35	40	45
Leu Gln Val Ile Ile Asp Val Asp Gly Ile Gln Leu Ala Arg Asp Ile		
50	55	60
Pro Met Ser Ser His Pro Val Ser Pro Asn Pro His His Gly Gly		

65	70	75	80
Ala Ala Glu Ile Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser			
85		90	95
Pro Glu Glu Leu Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn			
100		105	110
Leu Gln Ser Tyr Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg			
115	120		125
Asn Arg Val Asn Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala			
130	135		140
Leu Leu Ser Asp Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe			
145	150	155	160
Gly Phe Gly Ser Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro			
165		170	175
Val Asn Asn Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr			
180		185	190
Asn Ser Gly Phe Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly			
195	200		205
Ser Ser Pro Ala Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser			
210	215		220
Thr Ser Ala Pro Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala			
225	230	235	240
Ala Ser Phe Ser Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro			
245		250	255
Gly Phe Ser Gly Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala			
260		265	270
Pro Val Ala Pro Ala Phe Gly Gly Ser Ser Val Ala Gly Phe Gly			
275	280		285
Ser Pro Gly Ser His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp			
290	295		300
Thr Phe Gly Asn Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser			
305	310	315	320
Ile Ile Ala Thr Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr			
325		330	335
Val Glu Glu Leu Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys			
340	345		350
Ile Pro Leu Lys Pro Pro Pro Leu Glu Leu Leu Asn Val			
355	360	365	

<211> 6
<212> PRT
<213> Homo sapiens
<400> 68

Cys Lys Pro Cys Leu Lys
1 5

<210> 69
<211> 11
<212> PRT
<213> Homo sapiens
<400> 69

Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys
1 5 10

<210> 70
<211> 87
<212> PRT
<213> Homo sapiens

<400> 70
Lys Thr Pro Ser Val Ser Asp Ala Val Ala Met Ala Ile Cys Gln Phe
1 5 10 15

Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp Arg Cys Trp Asn Glu His
20 25 30

Pro Gly Ala Arg Gly Ala Gly Gly Arg Gln Gln Pro Gln Gln Gln
35 40 45

Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn Thr Thr Ser Gln Arg Tyr
50 55 60

Ser Asn Val Ile Gln Pro Ser Ser Phe Ser Lys Ser Thr Pro Trp Gly
65 70 75 80

Gly Ser Arg Asp Gln Glu Thr
85